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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/127,316	07/31/1998	TA YEN CHING		9973

7590

07/30/2002

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EXAMINER
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NOLAN, SANDRA M

ART UNIT	PAPER NUMBER
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1772

DATE MAILED: 07/30/2002

23

Please find below and/or attached an Office communication concerning this application or proceeding.

# **Advisory Action**

Application No.

09/127,316

Applicant(s)

CHING ET AL.

Examiner

Sandra M. Nolan

Art Unit

1772

**--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

THE REPLY FILED 22 July 2002 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE. Therefore, further action by the applicant is required to avoid abandonment of this application. A proper reply to a final rejection under 37 CFR 1.113 may only be either: (1) a timely filed amendment which places the application in condition for allowance; (2) a timely filed Notice of Appeal (with appeal fee); or (3) a timely filed Request for Continued Examination (RCE) in compliance with 37 CFR 1.114.

## **PERIOD FOR REPLY [check either a) or b)]**

- a) ☐ The period for reply expires \_\_\_\_\_ months from the mailing date of the final rejection.
- b) ☒ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection. ONLY CHECK THIS BOX WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

1. ☐ A Notice of Appeal was filed on \_\_\_\_\_. Appellant's Brief must be filed within the period set forth in 37 CFR 1.192(a), or any extension thereof (37 CFR 1.191(d)), to avoid dismissal of the appeal.
2. ☐ The proposed amendment(s) will not be entered because:
- (a) ☐ they raise new issues that would require further consideration and/or search (see NOTE below);
  - (b) ☐ they raise the issue of new matter (see Note below);
  - (c) ☐ they are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or
  - (d) ☐ they present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: \_\_\_\_\_.

3. ☐ Applicant's reply has overcome the following rejection(s): \_\_\_\_\_.
4. ☐ Newly proposed or amended claim(s) \_\_\_\_\_ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).
5. ☒ The a) ☐ affidavit, b) ☐ exhibit, or c) ☒ request for reconsideration has been considered but does NOT place the application in condition for allowance because: (See the attachment.).
6. ☐ The affidavit or exhibit will NOT be considered because it is not directed SOLELY to issues which were newly raised by the Examiner in the final rejection.
7. ☒ For purposes of Appeal, the proposed amendment(s) a) ☐ will not be entered or b) ☒ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.

The status of the claim(s) is (or will be) as follows:

Claim(s) allowed: 99-194.

Claim(s) objected to: \_\_\_\_\_.

Claim(s) rejected: 99-194.

Claim(s) withdrawn from consideration: \_\_\_\_\_.

8. ☐ The proposed drawing correction filed on \_\_\_\_\_ is a) ☐ approved or b) ☐ disapproved by the Examiner.
9. ☐ Note the attached Information Disclosure Statement(s) (PTO-1449) Paper No(s). \_\_\_\_\_.
10. ☐ Other: \_\_\_\_\_

**ATTACHMENT TO ADVISORY ACTION**

***Claims***

1. Claims 99-194 are pending.

***Entry of Response***

2. The response dated July 22, 2002 (Paper No. 22) has been entered.

***Rejection Maintained***

3. The 35 USC 103 rejection of claims 99-194, as repeated in section 2 of the Final Rejection dated May 22, 2002 (Paper No. 21) is maintained for reasons of record.

***Response to Arguments***

4. Applicant's arguments filed in Paper No. 22 have been fully considered but they are not persuasive.

The arguments in Paper No. 22 will be considered in the order in which they were presented.

On page 3 of Paper No. 22, applicants argue that Nordstrom teaches the copolymerization of cyclohexenylmethyl methacrylate with "any ' $\alpha,\beta$ -unsaturated monomer' (col. 2, line 71-col. 3, line 4)".

However, what Nordstrom actually discusses at col. 2, line 71 through col. 3, line 4 is "any of the  $\alpha,\beta$ -unsaturated monomers known to be copolymerizable with saturated esters of such unsaturated acids . . . to form resinous materials. It does not call for "any  $\alpha,\beta$ -unsaturated monomer", as applicants assert.

Also, the "copolymerizable monomers" (quoted from col. 3, line 5) discussed include the alcohols and esters that react with unsaturated acid esters.

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Applicants' theory that " $\alpha,\beta$ -unsaturated monomer" can only mean compounds having three atoms other than hydrogen is noted.

However, it is also noted that Nordstrom refers to unsaturated monomers in boarder terms, to wit:

i) At col. 3, line 5, Nordstrom discusses "copolymerizable monomers" as a class of compounds that "is intended to encompass all of these monomers [i.e., the  $\alpha,\beta$ -unsaturated monomers known to be copolymerizable with saturated esters of such unsaturated acids . . . to form resinous materials].

ii) Claim 1 of the Nordstrom patent says that monomer (A) is reacted with an "ethylenically unsaturated [compound]" not with an " $\alpha,\beta$ -unsaturated monomer".

It appears, based on passages i) and ii), that monomers that are not " $\alpha,\beta$ -unsaturated monomers" are useful in making patentees' copolymers. Accordingly, ethylene and other unsaturated monomers are contemplated by Nordstrom.

Note, too, that Ching, at col. 18, lines 6+, teaches that monomers containing allylic radicals can be polymerized with comonomers, such as ethylene (col. 18, line 9) and acrylates (col. 18, line 11) to produce polymers having polyethylenic backbones. It goes on to say, at col. 18, lines 18+, that "A preferred way to make [the oxygen scavenging] compositions of this invention is to . . . form a polymer with a polyethylene backbone and with pendant . . . allylic . . . moieties". Clearly, ethylenic copolymers are contemplated by Ching.

On page 3, applicants argue that the teachings of Nordstrom and Ching do not motivate one to combine them.

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However, Ching deals with oxygen scavengers (title) and Nordstrom deals with polymers that cure in air without catalysts (col. 1, lines 53-56). Since both concepts relate to reactivity with oxygen-containing materials, they suggest each other.

On page 4, applicants argue that the fact that Nordstrom's cyclohexene-containing units were reactive in the presence of oxygen does not guide one of ordinary skill in the art to select Nordstrom's cyclohexene-containing units as opposed to any of the other oxygen-reactive species discussed by Ching at col. 11, lines 5-8.

However, Ching's discussion of oxygen-scavenging polymers is found in cols. 13+, not in col. 11. The teaching of allylic hydrogen in pendant cyclic groups is found at col. 17, lines 26+ in Ching.

On page 4, applicants argue that Nordstrom does not point out the benefits of cyclic allylic groups in reducing organoleptics in oxygen scavenging packaging.

However, the other cited reference, Ching, teaches the use of cyclic allylic groups (col. 17, lines 26+) and states that limiting the exposure of oxygen sensitive food products to oxygen in a packaging system helps to maintain freshness, so that the food does not spoil (col. 2, lines 61+). Since spoiled food is organoleptically unpleasant, due to the poor flavor/taste of same, Ching suggests that the oxygen scavenging packaging helps to reduce organoleptics, it suggests the organoleptic features recited in applicants' claims 116 and 136.

On page 4, applicants conclude that there is no motivation to use the cyclohexene-containing units of Nordstrom in the polymers of Ching.

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However, as has been mentioned above, both patents deal with the reactivity of polymers with oxygen-containing materials.

Also, both Nordstrom and Ching teach the use of their polymers to make films; see col. 4, line 45 and col. 13 of Nordstrom and col. 27, line 56 of Ching. It would be a matter of routine engineering skill to employ the films suggested by the combination of Ching and Nordstrom in oxygen reactive/scavenging packaging materials.

***Conclusion***

Any inquiry concerning this communication should be directed to the Examiner, Sandra M. Nolan, whose telephone number is 703/308-9545. The Examiner can normally be reached on Monday through Thursday, from 6:30 am to 4:00 pm, Eastern Time.

If attempts to reach the Examiner by telephone are unsuccessful, her supervisor, Harold Pyon, can be reached at 703/308-4251. The general fax number for the art unit is 703/305-5436. The fax number for after final communications is 703/872-9310. The receptionist answers 703/308-0661.

  
S. M. Nolan  
Patent Examiner  
Technology Center 1700

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July 29, 2002